

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the following discussion, is respectfully requested.

Claims 1-22 are pending in the application.

In the outstanding Office Action, Claims 1, 5, 9, 12, 16 and 20 were rejected under 35 U.S.C. §102(e) as being anticipated by Cedervall et al. (U.S. Patent 6,671,514, hereinafter Cedervall); and Claims 2-4, 6-8, 10, 11, 13-15, 17-19, 21 and 22 were indicated as containing allowable subject matter.

Applicants acknowledge with appreciation the indication of allowable subject matter.

Briefly recapitulating, Claim 1 is directed to a method of determining the position of a mobile station and a mobile telecommunications network. The network includes a plurality of base stations controlled by a control unit. The mobile telecommunication network is designed to adopt at least a first state corresponding to periods of transmission of signals useful to the mobile station for determining the position and a second state corresponding to periods of silent during which no signal is transmitted. The method includes arranging by the control unit the periods of transmissions and the periods of silence in cycles, including at least one period of silent. The cycle allocated to a base station is identical to a cycle allocated to any base station adjacent to it, but is offset in time. The present invention allows for coordination between adjacent base stations.¹

Cedervall describes a system and method for improving the accuracy of a location estimation measurement within a telecommunication system. Transmissions from surrounding base transceiver systems are received by a reference location device and any interbase transceiver system timing differences are resolved. A location estimation of the

¹ Specification, column 4, lines 4-6.

mobile station within the telecommunication system is then obtained.² However, as noted in the Official Action Cedervall does not disclose or suggest a control unit which controls the base stations. Nonetheless, the Official Action recites that such a control unit is inherent.

Applicant respectfully submits that the assertion of inherency is insufficient to show that Cedervall inherently teaches Applicants' claimed control unit which controls a plurality of base stations because the rejection fails to show "that the alleged inherent characteristic necessarily flows from the teachings of the applied prior art."³ That is, the Official Action provides no rationale for a finding of inherency. "The fact that a certain result may occur or be present in the prior art is not sufficient to establish inherency of that result or characteristic."⁴ "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'"⁵ The Official Action states that one skilled in the art would recognize that control units are either in base transmission systems or base control systems. Applicants submit this rationale is an impermissible hindsight reconstruction of Applicants' invention.⁶

² Cedervall Abstract

³ See MPEP 2112 (emphasis in original) (citation omitted). See also same section stating that "[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic," (emphasis in original). See also In re Robertson, 49 USPQ2d 1949, 1951 (Fed. Cir. 1999) ("[t]o establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill,'" citing Continental Can Co. v. Monsanto Co., 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991); and "[i]nherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient," Id. at 1269 (citation omitted)).

⁴ In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1995, 1957 (Fed. Cir. 1993).

⁵ In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

⁶ MPEP § 2143.01 "Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge of one of ordinary skill in the art."

Cedervall also discloses idle periods distributed in a non-random, periodic manner, thus presenting a more simple error interface design decision. This periodicity is achieved using periodical idle periods if a mobile station reports an instance of simultaneous or nearly simultaneous conflicting idle periods to a serving base station. Upon detection of the near simultaneous signals, the controlling base station may then transmit a time signal 22 to the pertinent (conflicting) base station to enable the conflicting base station to adjust the periodicity of the idle periods so as to no longer coincide with that of the controlling base station. Alternatively, the controlling base station may adjust its own idle period timing to avoid conflict with the other base station. The timing or periodicity adjustment could also constitute a relocation of the idle period within a CDMA frame structure or a time shift of the entire frame structure.⁷ In other words, in Cedervall, if the periods of silence of neighbor base stations overlap, a station may transmit to the conflicting station a time signal for adjusting the idle periods so as not to coincide any more or may adjust its own idle period to avoid conflict. However, the arrangement of the periods of silent in Cedervall is done via interaction of the base station in the network, while in Applicants' claimed invention, the arrangement is done by the claimed control unit.

Claim 12 is directed to a mobile telecommunication network including a plurality of base stations controlled by control unit. The base stations can adopt at least a first state corresponding to periods of transmission signals useful to the mobile station for determining its position by the use of a position determination method and a second state corresponding to periods of silence during which no signal is transmitted. The mobile telecommunication network control unit is designed so that periods of transmission and periods of silence are arranged in cycles including at least one period of silence. A cycle allocated to a base station is identical to a cycle allocated to any base station adjacent to it but is offset in time from the

⁷ Cedervall, column 7, lines 45-65.

adjacent base station cycle. In view of Applicants' claimed control unit Applicants submit that Claim 12 distinguishes over Cedervall for substantially the same reasons as described above relative to Claim 1.

Claim 5 is directed to the measurement method of Claim 1 wherein each cycle includes, in addition to at least one telecommunication signal transmission period and at least one period of silence, a period of transmitting specific location signals. Cedervall describes a location method based on time difference of arrival (TDOA) triangulation techniques.⁸ However, Applicants submit Cedervall does not disclose or suggest a period of transmitting specific location signals as recited in Claim 5 and illustrated in Figure 2b as well as described in Applicants' specification.⁹ That is, Cedervall does not disclose or suggest three transmission states: a) a state corresponding to periods denoted T for transmitting signals, b) a state corresponding to periods of silence denoted S, and c) a state corresponding to periods of transmitting specific location signals denoted E. In Cedervall the mobile station relies upon conventional TDOA techniques to compare the time of arrival of normal transmission signals, not specific location signals. Thus, Applicants submit that claims 5 and 16 patentably define over Cedervall for this reason as well as for the reasons described relative to independent Claims 1 and 12.

MPEP § 2131 notes that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "When a claim covers several structures or compositions, either generically or as alternatives, the claim is deemed anticipated if any of the structures or compositions within the scope of the claim is known in the prior art." *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001) (claim to a system for setting a

⁸ Cedervall, column 5, line 59 to column 6, line 4.

⁹ Specification, page 7, line 12 to page 8, line 5.

computer clock to an offset time to address the Year 2000 (Y2K) problem, applicable to records with year date data in "at least one of two-digit, three-digit, or four-digit" representations, was held anticipated by a system that offsets year dates in only two-digit formats). See also MPEP § 2131.02. "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Because Cedervall does not disclose or suggest all the features recited in Claims 1 and 12, Cedervall does not anticipate the invention recited in Claims 1 and 12, and all claims depending therefrom.

Accordingly, in view of the previous discussion, Applicants submit the present application is in condition for allowance and respectfully requests an early and favorable action to that effect.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Eckhard H. Kuesters
Attorney of Record
Registration No. 28,870

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)
MM/rac

Michael E. Monaco
Registration No. 52,041

I:\ATTY\MM\MAMENDMENT\0057205699US.AM DUE 9-22-05.DOC